

The Correlation between Students' Vocabulary Learning Strategies and Their Vocabulary Size

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ABSTRACT

The research aimed to finding out (1) the types of vocabulary learning strategies used by students of SMK Negeri 4 Makassar, (2) the differences of vocabulary learning strategies used by the students of SMK Negeri 4 Makassar based on their field of study, and (3) whether or not there is a significant relationship between vocabulary learning strategies and vocabulary size of the students of SMK Negeri 4 Makassar.

The research applied correlational research design. Three classes different from three majors; accounting, administration, and tourism, were chosen as the samples of this research obtained through random sampling technique from the population that consisted of 156 students in the academic year 2016/2017. There were 82 samples in this research. The data of the students' vocabulary learning strategies (VLS) were collected by using VLS questionnaire that adapted from Schmitt, while the data about the students' vocabulary knowledge were taken from vocabulary test. The data collected were then analyzed through descriptive and inferential statistics through SPSS 20 program.

The research results showed that (1) the students used vocabulary learning strategies respectively from the most frequent to the least frequent; they are metacognitive strategies, determination strategies, social strategies, memory strategies, and cognitive strategies, (2) the accounting students used metacognitive strategies frequently ($m=3.39$), administration students tended to use determination strategies ($m=3.32$), and tourism students applied social strategies frequent ($m=3.37$), and (3) there was correlation between students' VLS and vocabulary knowledge based on result where $r = .225$ categorized as low degree of correlation and $p = .042$ where $p < \alpha$ ($\alpha=.05$), it means H_0 was rejected. Therefore, the result indicated that VLS used of students' of SMK Negeri 4 Makassar had correlation with their vocabulary knowledge.

Keywords: Vocabulary learning strategies, vocabulary size.

INTRODUCTION

To master English, students should pay attention to many aspects of language in order to achieve a high degree of competence in English. One of those aspects is vocabulary. Vocabulary as an importance language component supports of all other skills, namely writing, reading, speaking, and listening, in producing an effective communication both in spoken and written, somebody has to master adequate vocabulary. In fact, various researches showed that vocabulary is the weakness of the skills. Students cannot apply those skills properly because of the lack of their vocabulary size. Sudjamar (2013) found students encountered some difficulties in speaking English, such as lack of confidence and lack of linguistic supports including vocabulary and pronunciation. Wilson (2015) in his writing research also stated “Although they have mastered the basic grammar, they still cannot convey their ideas without mastering an adequate size of words and their meanings”.

To communicate in English efficiently and comprehensively, learners need to have sufficient vocabulary size. Vocabulary size refers to the number of words that a learner has in mental lexicon (Kalajahi and Pourshahian, 2012). Experts proposed different size; Nation (1990) states “all learners need to know about 2.000 to 3.000 word level in order to function effectively in English”. But if one wants to learn English better, 5.000 words are needed (Schmitt, 2000). Allen (1983) reported vocabulary size for Japanese high school students is 5000 words. In addition, Kalajahi and Pourshahian (2012) proposed 2.000 words for effective basic language use and 3.000 to 5.000 words for successful text comprehension.

There are many ways to acquire vocabulary. Based on the researcher’s experience during teaching English in secondary school, it was found that students had their own way to deal with a new word, namely: taking a note, looking up in dictionary, using picture. In the context of learning English as foreign language the way they learn new vocabulary is called as vocabulary learning strategies. This vocabulary learning strategy helps them to learn vocabulary. For example, some students learn and memorize a new word once that has been indirectly taught. While other learners may look up the meaning of new words in a bilingual dictionary. According to Schmitt’s taxonomy (1997) in vocabulary learning, which consist of two kind of vocabulary learning strategies namely discovery strategies (determination strategy and social strategy) and consolidation strategies (memory, cognitive, and meta-cognitive strategy).

Unfortunately, some students are not aware about their vocabulary learning strategy. In addition, there are students who do not know about vocabulary learning strategy even though they are using it unconsciously. This present study focuses on the third year students of SMK Negeri 4 Makassar who are divided into three majors field of study. Those are accounting, office administration, and tourism service. These students are selected as participants in this study because vocational school students are varies in educational background which are potential resources in providing various data.

Based on the previous explanation, the objectives of this research were:

1. To find out the types of vocabulary learning strategies that students of SMK Negeri 4 Makassar use in learning.
2. To find out the differences of vocabulary learning strategies used by the students of SMK Negeri 4 Makassar based on field of study.
3. To find out whether or not there is significant relationship between vocabulary learning strategies and vocabulary size of the students of SMK Negeri 4 Makassar.

REVIEW OF RELATED LITERATURE

Previous findings

There are various previous findings of researches have relation to this research. Riankamol (2008) investigated English vocabulary learning strategies were applied by English gifted students of Triam Udomsuksa School in the first semester of the academic year 2008. The subjects were twenty seven students who studying in English gifted program at Triam Udomsuksa School. The purpose of this survey is to find the most and least frequently used vocabulary learning strategies used by the English gifted students. Instrument used in this survey study was a 25-item questionnaire adapted from Schmitt's taxonomy for vocabulary learning strategies. The data were analyzed by using frequency, percentages, and means. The results indicated that the use of Metacognitive strategies are the most frequently used by English gifted students who are considered high proficient students in English and the least frequently used vocabulary strategy was Cognitive strategies.

Waldvogel (2013) concerned with the relationship of vocabulary learning strategy of adult Spanish foreign language students' use at three different level, those are beginner, intermediate, and advanced level and their vocabulary size. The researcher applied two instruments in this study, they were Spanish Vocabulary Learning Questionnaire (SVLQ) adapted from Catalan and Spanish yes-no question checklist test adapted from Meara and Milton. The researcher discovered that SVLQ results different on those levels. The VLS used of beginner is 19 VLS, intermediate 24 VLS and advanced learners 25 VLS. It means experienced language learners tend to applied more strategies in learning vocabulary than the novice learners. Then, the data also showed the existence of a significant relationship between the use of some types of vocabulary learning strategies and vocabulary size among advanced learners, and lack significant correlation between beginner and intermediate level learners.

Amin (2013) in his thesis investigated the VLS used by Band 1 (very limited user) and Band 4 (satisfactory user) undergraduate students of university utara Malaysia which were selected based on their result in the Malaysian University English Test.

The objectives of his descriptive quantitative study were to survey the vocabulary learning strategies used by the participants and to determine to what extent their use of the strategies was influenced by their proficiency level. The instrument employed in this study was a questionnaire developed by Lachini which consisted of five categories of vocabulary learning strategies: creative, reflective, effective, active, and motivated. The responses of 100 Band 1 and 100 Band 4 students to the questionnaire were examined on the frequency of their use of the vocabulary learning strategies. The results indicated that there was no significant difference in terms of the frequency of use between Band 1 and Band 4 participants.

The researches above are related to this research, most of them tell about VLS but there are some differences among these researches such as, the subjects of research, design of the research and the use of instruments. This study will be done in vocational school whether this study has not done yet in vocational school, particularly in Makassar.

Concept of vocabulary learning strategies

Vocabulary learning strategies is a part of learning strategies. Among language learning strategies, vocabulary learning strategies is one of the most important investigation areas in vocabulary issues. According to Cameron (2001) and Intrapraser (2004) vocabulary learning strategies is defined as a particular ways used by students to learn foreign language vocabulary.

Every language learner has their own way for learning vocabulary. Language learners need to deal with a wide range of vocabulary learning strategies by the purpose of acquiring new vocabulary and increase vocabulary size, knowing a large number of words with their meanings, or how to pronounce and use them correctly.

Classification of vocabulary learning strategies

Experts have different ways in classifying vocabulary learning strategies. O'Malley and Chamot (1990) divided vocabulary learning strategies into three categories: cognitive, metacognitive and social/affective. Schmitt (1997) has developed a taxonomy of vocabulary learning strategies based on Oxford's language learning strategy. The following is the strategies offered by Schmitt : 1) determination strategies (analyze part of speech, guess meaning from textual context, and use a dictionary(bilingual or monolingual), 2) social strategies (ask teacher for a synonym, paraphrase, or L1 translation of new word; ask classmate for meaning, study and practice meaning in a group, interact with native speaker), 3) memory strategies (connect the word in its synonyms and antonyms, group the words, study the spelling of a word, say new word aloud when studying), 4) cognitive strategies (verbal repetition, written repetition, word lists, put English labels on physical objects), and 5) metacognitive strategies (use English-language media; songs, movies, etc).

Concept of vocabulary size of language learners

The term vocabulary size has been referred to as “the number of words a learner has in his mental lexicon” (Kalajahi & Pourshahian, 2012). Experts proposed vocabulary size in mastering English differently. Schmitt (2000) indicates that words around 2,000 would be a realistic goal that language learners need for daily basic conversations but this will not cover every conversational topic. Nation and Waring (1997) propose around 2,000-3,000 word families for productive speaking and writing. This is consistent with Allen (1983) who recommends that about 3,000 words would be necessary ‘productive’ items to be used in writing and speech.

In summary, in dealing with the four language skills, it is crucial for a language learner to have enough vocabulary: 2,000 word families for basic conversation; 2,000-3,000 for productive speaking and writing. Therefore a language learner should be taught skills known as language learning strategies to expand their vocabulary.

RESEARCH METHOD

This research employed correlational research design. Three classes different from three majors; accounting, administration, and tourism, were chosen as the samples of this research obtained through random sampling technique from the population that consisted of 156 students in the academic year 2016/. There were 82 samples in this research.

In this research, the researcher applied two instruments. They were questionnaire and vocabulary test. To gather information of students’ vocabulary learning strategies, the researcher divided questionnaire into two parts. The first part of the questionnaire was participants’ background information which was intended to collect data on demographical variables for instance field of study of respondents while the second part was proposed to collect data on VLS use of the respondents. The questionnaire was adopted from Schmitt (1997) and it adapted by translating to bahasa Indonesia so that the students could easily recognized and gave respond to the questionnaire. The questionnaire used five point of Likert-scale as follow: 5 = always used that vocabulary learning strategy, 4 = often used that vocabulary learning strategy, 3 = sometimes used that vocabulary learning strategy, 2 = seldom used that vocabulary learning strategy, 1 = rarely used that vocabulary learning strategy. The second instrument was vocabulary test consisted of 70 items of multiple choices. Nation’s vocabulary size test was adopted as the instrument for measuring the participants’ vocabulary size. The participants were invited to choose one right answer that had similar meaning to the target word.

The data of the students’ vocabulary learning strategies and vocabulary size collected were then analyzed through descriptive and inferential statistics through SPSS 20 program to know the descriptive and inferential statistic.

FINDINGS AND DISCUSSION

1. Vocabulary Learning Strategies Used

The data of VLS refers to frequently of the students use learning strategies in learning, particularly vocabulary learning. The mean, standard deviation (SD), degree and rank of VLS in general are presented as followed:

Table 4.1 The Mean, SD, Degree, Rank of VLS

Strategies	Mean	SD	Degree	Rank
Determination	3.35	.57	Medium	2
Social	3.08	.66	Medium	3
Memory	2.96	.56	Medium	4
Cognitive	2.84	.64	Medium	5
Metacognitive	3.48	.63	Medium	1
Total Score	3.14	.45	Medium	

As shown in table 4.1, the result of the descriptive statistic analysis for the total score which respected to overall strategy use ($M=3.14$) revealed that the third year students of SMK Negeri 4 Makassar were medium learning strategy users. In other words, the students employed strategies in the process of learning vocabulary with medium frequency. Therefore, the students reported medium use of each strategy category with the mean score spread from the highest rank ($M = 3.48$) to the lowest rank ($M=2.84$)

Then, the highest frequently strategy used by the students was metacognitive strategies with $M = 3.48$. Then, it was followed by determination, social and memory strategies, while cognitive strategies ranked the lowest mean score ($M = 2.84$). Therefore, specifically it found that all of the students indicated a preference for more metacognitive and determination strategy users.

Referring to the result, the conclusion that can be drawn is the frequently strategy used by the third year students at SMK are metacognitive and determination strategies. Meanwhile, metacognitive strategies deal with helping students to center their learning, to arrange and plan their learning, and to evaluate their learning. The students could be categorized as independent learner.

2. The variations in students' VLS use according to field of study

The table below indicates the frequently used VLS based on field of study of students SMK Negeri 4 Makassar.

Table. 4.2 Variations in students' strategy use in five categories according to fields of study

VLS Category	Fields of Study					
	Accounting		Administration		Tourism	
	Mean	S.D	Mean	S.D	Mean	S.D
Determination	3.37	.48	3.32	.43	3.24	.56
Social	3.22	.39	3.20	.39	3.37	.39
Memory	3.24	.41	3.25	.42	3.04	.57
Cognitive	3.28	.41	3.27	.44	3.10	.57
Metacognitive	3.39	.38	3.24	.55	3.15	.59

As shown in table 4.2, accounting students used metacognitive strategies most frequently ($M = 3.39$), followed by determination, cognitive, memory and social strategies. Students of administration department used determination strategies frequently ($M = 3.32$), followed by cognitive, memory, metacognitive and social. Students of tourism department used social strategies most frequently ($M = 3.37$) and the least frequently used is memory.

3. The students' vocabulary size

The students' vocabulary test score is presented in table 4.3

Table 4.3 The Frequency and Percentage of Students' Vocabulary Test Score

No.	Classification	Score	Frequency (F)	Percentage (%)
1	Excellent	91 – 100	3	3.66
2	Very Good	76 – 90	29	35.37
3	Good	61 – 75	29	35.37
4	Average	51 – 60	14	17.07
5	Poor	26 – 50	7	8.54
6	Very Poor	0 – 25	0	0
Total			82	100

Table 4.3 showed 3 students (3.66 %) who got excellent classification, 29 students (35.37%) who got very good classification, and 29 students (35.37%) got good classification. Meanwhile, 14 students (17.07 %) were in average classification, there were 7 students (8.54%) in poor classification, and there was no students got very poor classification. Then, these results converted into three major categories; high, medium, and low.

The data of students' frequency and percentage score of students' vocabulary test score based on the test result in table 4.3 revealed that most of students (61 students) were categorized in high-achieving category. It was revealed by the range interval score spread in good to excellent category which included 29 students got good classification, 29 students who got very good classification, and 3 students who got

excellent classification. Meanwhile, 14 students were in medium category, and there were 7 students in low category which revealed by the range interval score spread in poor and very poor classification. Besides, the result of the mean score of the students' vocabulary test score at SMK Negeri 4 Makassar showed as follow.

Table 4.4 The Mean Score and Standard Deviation of Students' Vocabulary Test Score

	Mean Score	Std. Deviation
Vocabulary Test Score	69.77	12.49

As shown above, the mean score of the students' vocabulary test score was 69.77 and the standard deviation was 12.49 which categorized in good category. In other words, the vocabulary test score of students of SMK Negeri 4 Makassar based on the result of the test was classified in high or good achievement category. In fact, this result indicated that the students were categorized as high achievement vocabulary on the result.

4. The correlation between students' vocabulary learning strategy and their vocabulary size.

This subsection deals with the analysis of correlation between students' vocabulary learning strategies used and their vocabulary size of the third year students of SMK Negeri 4 Makassar. In this section, the correlation coefficient is represented by "r" ranges from less than +/- .35 which means a low significant correlation, between +/- .35 and +/- .65 means a medium or moderate significant correlation, and above +/- .65 means a high significant correlation (Gay, et al. 2006). In addition, the researcher compared the calculation of Sig. or p with $\alpha = .05$ in order to conclude the hypothesis testing. If the calculation is smaller than alpha $\alpha = .05$, it means that H_0 is rejected and H_1 is accepted. Meanwhile, if the calculation is bigger than alpha $\alpha = .05$, it means that H_0 is accepted and H_1 is rejected.

Table 4.5 correlation of overall VLS and Vocabulary size

		Vocabulary Learning Strategies	Vocabulary Size
Vocabulary Learning Strategies	Pearson Correlation	1	.225*
	Sig. (2-tailed)		.042
	N	82	82
Vocabulary Size	Pearson Correlation	.225*	1
	Sig. (2-tailed)	.042	
	N	82	82

*. Correlation is significant at the 0.05 level

Based on result of Pearson correlation between students' vocabulary learning strategies and their vocabulary size in table 4.10, this current research displayed Pearson correlation (r) = .225. It implied that the degree of correlation was low and the sig. (2-tailed) was .042 which smaller than $\alpha = .05$. Then, the result of hypothesis testing of this research showed that the null hypothesis (H_0) was rejected and alternative hypothesis was accepted. It means that there was significant correlation between students' vocabulary learning strategies and their vocabulary size, although the correlation is low.

Table 4.6 Correlation between five strategies and vocabulary size

Correlations		
		Vocabulary size
Memory	Pearson Correlation	-.132
	Sig. (2-tailed)	.237
	N	82
Cognitive	Pearson Correlation	.178
	Sig. (2-tailed)	.109
	N	82
Metacognitive	Pearson Correlation	.325
	Sig. (2-tailed)	.003
	N	82
Determination	Pearson Correlation	.262
	Sig. (2-tailed)	.017
	N	82
Social	Pearson Correlation	.135
	Sig. (2-tailed)	.225
	N	82

Table 4.6 showed the correlation coefficient between 5 strategies of vocabulary learning strategies and the students' vocabulary size of SMK Negeri 4 Makassar. First strategies was memory strategies, from result of data analysis, it showed that $r = -.132$, where this score lower than .35, or $p = .237$ was greater than $\alpha = 0.05$ ($p > \alpha$). Therefore the result indicated that memory strategies had no correlation with vocabulary size of participants.

The second strategies was cognitive strategies, from result of data analysis, it showed that $r = .178$, where this score lower than .35, or $p = .109$ was bigger than $\alpha = 0.05$ ($p > \alpha$). Therefore the result showed that cognitive strategies had no correlation with vocabulary size of participants. Then, the next strategies was metacognitive strategies, from result of data analysis, it showed that $r = .325$, where this score lower than .35, or $p = .003$ was smaller than $\alpha = 0.05$ ($p < \alpha$). Therefore the result indicated that metacognitive strategies had correlation with vocabulary size of participants.

The fourth strategies was determination strategies, from result of data analysis, it showed that $r = .262$, where this score lower than $.35$, or $p = .017$ was smaller than $\alpha = 0.05$ ($p < \alpha$). Therefore the result indicated that determination strategies had correlation with vocabulary size of participants. Then, the last strategies was social strategies, from result of data analysis, it showed that $r = -.135$, where this score lower than $.35$, or $p = .225$ was greater than $\alpha = 0.05$ ($p > \alpha$). Therefore the result revealed that social strategies had no correlation with vocabulary size of participants.

DISCUSSION

From the previous explanation, the researcher wishes that both problem statements in this research can clearly be answered. The first research question is about the use of the five strategies of VLS by students of SMK Negeri 4 Makassar. It has been verified by the data provided in this chapter that the vocabulary learning strategies used by the students, as measured by VLS questionnaire, ranges from 2,84 to 3,48 which means that the use is generally in medium or moderate category. The use of vocabulary learning strategies respectively from the most frequent to the least frequent are 1) Metacognitive strategies, 2) Determination strategies, 3) Social strategies, 4) Memory strategies, and 5) Cognitive strategies.

The second questions, according to table 4.2, five vocabulary learning strategy groups employed by the students of three field of study are shown as means and standard deviation. Considering the strategies used by Accounting students, the metacognitive is the most frequently used, followed by determination, cognitive, and memory strategies respectively whereas social strategies are the least used by them. This result corresponded with Shamis (2003) who confirmed that metacognitive strategies are considered to be often used strategies by many language learners. Likewise, social strategies also are the least frequently used by administration students, the most frequently is determination, followed by cognitive, memory, and metacognitive. On the contrary, tourism students used social strategies most frequently, followed by determination, metacognitive, cognitive, and memory strategies. It is supported by Astika (2016) in her research which found that students discover new vocabulary by interaction with others. From the findings of this study, it can be said that vocabulary learning strategies employed by the students of SMK Negeri 4 Makassar based on three fields of study are different because of several characteristics of their majors. The students majored in tourism used social strategies most frequent whereas it was contradictive with accounting and administration majors that used them least frequent.

Furthermore, This current research displayed Pearson correlation (r) = .225. It implied that the degree of correlation was low and the sig. (2-tailed) was .042 which smaller than $\alpha = .05$. Then, the result of hypothesis testing of this research showed that the null hypothesis (H_0) was rejected and alternative hypothesis was accepted. It means that there was significant correlation between students' vocabulary learning strategies and their vocabulary size, although the correlation is low. This current research had similar result with others which were found by Furqon (2013). This

research found that there is a positive correlation between VLS and vocabulary level. Therefore, it can be considered that the students' English proficiency level was influenced by other factors that might come from students' factors such as VLS applied by the students whether inside or outside of classroom regarding to result of proficiency test. Specifically, based on the result of these five strategies, it revealed that there were two strategies had correlation with vocabulary size, those are metacognitive and determination strategies. As shown before, both of these strategies also the most frequently used strategies by the participants. It can be concluded, the more frequent a strategy is used in learning the better result achieved.

CONCLUSION AND SUGGESTIONS

The results of this research revealed that the students at SMK Negeri 4 Makassar were generally medium category users of vocabulary learning strategies, where the use of vocabulary learning strategies respectively from the most frequent to the least frequent are metacognitive strategies, determination strategies, social strategies, memory strategies, and cognitive strategies. Then, the use of vocabulary learning strategies based on the field study of students SMK Negeri 4 Makassar showed the accounting students used metacognitive strategies frequently ($m=3.39$), administration students tended to use determination strategies ($m=3.32$), and tourism students applied social strategies frequent ($m=3.37$). Finally, the result of this research showed there was a significant correlation between students' VLS and vocabulary size based on result where $r = .225$ categorized as low degree of correlation and $p = .042$ where $p < \alpha$ ($\alpha=.05$), it means H_0 was rejected. Therefore, the result indicated that VLS used of students' of SMK Negeri 4 Makassar had correlation with their vocabulary size.

Additionally, since the research mentioned the answer relating to field of study, vocabulary learning strategies and vocabulary size. However, the further research is needed to provide the better understand of their interconnection and conduct the test which will find their accuracy and to conduct more comprehensive investigation on a wide range of the factors and variables affecting VLS used by the EFL students, especially Indonesian students.

REFERENCES

- Allen, V. F. 1983. *Techniques in teaching vocabulary*. Oxford: Oxford University Press.
- Amin. N. H. 2013. The vocabulary learning strategies used by UUM students in relation to their proficiency levels. *Jurnal Bahasa dan Sastra*. Vol. 13. No.1. pp. 92-101. Universitas Pendidikan Indonesia.

- Astika, I. G. 2016. Vocabulary learning strategies of secondary school students. *IJOLTI*. 1(1): 1-18
- Furqon. F. 2013. Students' vocabulary learning strategies and reading comprehension. *Jurnal of English Education 2013*. 1(1): 68-80. Universitas Pendidikan Indonesia.
- Gay, L.R., et al. 2006. *Educational Research : Competencies for Analysis and Application (Eight Edition)*. Colombus: Pearson Prentice Hall.
- Kalajahi S. A., and Pourshahian B. 2012. Vocabulary learning strategies and vocabulary size of ELT students at EMU in northern Cyprus. *English Language Teaching*. Vol. 5, No. 4.
- Nation, P. 1990. *Teaching and learning vocabulary*. Boston: Heinle & Heinle.
- Riankamol, N. 2008. A survey study of vocabulary strategies of gifted English students at Triam Udomsuksa school in the first semester of academic year 2008. *Unpublished thesis*. Thammasat University, Bangkok
- Schmitt, N. 1997. *Vocabulary learning strategies*. In N. Schmitt and M. McCarthy (Eds.), *Vocabulary: Description, acquisition and pedagogy* (pp. 77-85). Cambridge: Cambridge University Press.
- Schmitt, N. 2000. *Vocabulary in language teaching*. Cambridge: Cambridge University Press.
- Shamis, W. A. 2003. Language learning strategy use in Palestine. *TESL-EJ*, 7(2), 20-33.
- Sudjamara D. B. 2013. The difficulties encountered by non-English department students in speaking English. *Repository UPI*.
- Waldvogel, D. A. 2013. The relationships between vocabulary learning strategies and vocabulary size among adult Spanish foreign language learners. *Journal of Language Teaching and Research*, 4(2), 209-219.
- Wilson A. 2015. The effects of vocabulary mastery and student's perception on teaching material towards writing skill. *DEIKSIS Jurnal Ilmiah Bahasa dan Seni*. Vol. 07 No.03.(pp.171-246).